For OPERATING PERMIT 090PAD337 to be issued to:

Intertape Polymer Corporation (IPG) – Brighton Plant Adams County Source ID 0010195

> Prepared by Jacqueline Joyce March 2010 Revised June and August 2010

I. Purpose:

This document establishes the basis for decisions made regarding the Applicable Requirements, Emission Factors, Monitoring Plan and Compliance Status of Emission Units covered within the Operating Permit proposed for this site. It is designed for reference during review of the proposed permit by the EPA, the Public and other interested parties.

A Title V permit (970PAD183) was originally issued for this facility on July 1, 1999. At that time the facility consisted of three coating lines, a film line and two boilers and the Title V permit incorporated the requirements of Colorado Construction Permit 83AD152 (facility wide permit). A Title V renewal permit application was submitted on May 23, 2003. IPG indicated their intent to shutdown the facility and the Title V renewal permit was never issued. In February 2007, IPG notified the Division that the coating lines had ceased operating in November 2006 and submitted final Title V semi-annual monitoring and permit deviation reports and an annual compliance certification. In March 2007, IPG requested that the Title V operating permit and underlying construction permit be cancelled. The Division cancelled the Title V operating permit and underlying construction permit effective December 31, 2006.

IPG submitted an application to re-start one boiler and the film line at this facility on August 6, 2007. Colorado Construction Permit 07AD0748 was issued on August 30, 2007 to address this and the facility at that time was a true minor source for hazardous air pollutants (HAP) and for purposes of major stationary new source review requirements (prevention of significant deterioration (PSD) and non-attainment area new source review (NANSR)) and the Title V Program.

In December 2007, IPG indicated their desire to re-start one of the coating lines. Colorado Construction Permit 08AD0168 was issued on August 7, 2008 to address the coating line, as well as the film line and boiler (Colorado Construction permit 07AD0748 was subsequently cancelled). Colorado Construction Permit 08AD0168 was later revised (modification issued on January 30, 2009) to allow the second boiler to be used as a back-up. Colorado Construction Permit 08AD0168 specified that the Title V permit

application be submitted within one year of issuance of the construction permit. The Title V permit application was submitted on July 28, 2009.

Conclusions made in this report are based on information provided by the applicant in the Title V permit application submitted on July 29, 2009, comments on the draft permit and technical review document submitted on July 13, 2010, various telephone conversations and e-mail correspondence with the source and review of Division files. This narrative is intended as an adjunct to the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

II. Source Description

This source is classified as a manufacturer of pressure sensitive tape under Standard Industrial Classification 2672. The facility consists of one film line, one coating line and two natural gas fired boilers.

Film Line

In order to produce film, polypropylene beads are purchased and stored in silos. These beads are melted and formed into a sheet which is stretched lengthwise and then widthwise which accomplishes the orientation process. This film is slit for either internal use or to be sold to outside converting operations. The film line also has a polypropylene scrap recycling system that enables scrap film to be chopped for size reduction and recycled back into the process. The scrap recycling system uses a baghouse that vents inside the building to minimize dust. The film line consists of a polypropylene extruder, continuous web handling rollers, conveyors, a winder, ten oven zones (heated by nine (9) 0.5 mmBtu/hr and one (1) 1 mmBtu/hr natural gas-fired burners and two corona treaters).

Coating Line

At the coating line, plastic film is unwound from rolls and traverses through three separate coating stations where primer, adhesive and release coatings are applied, respectively. Each coating station is followed by a series of steam-heated ovens to dry and cure the coatings. Emissions from the coating stations and the associated dryers are captured via a permanent total enclosure and routed to an activated carbon bed solvent recovery system. The primer and release coatings use toluene as the solvent and the adhesive coating uses hexane and toluene as the solvents. The coatings used

in the coating line are blended, mixed and prepared by IPG. The mixers, tanks and distillation column used at the facility are all vented to the carbon bed solvent recovery system. When the carbon beds reach their respective capacity for collection of solvent, they are stripped using steam and the solvent water mixture is recovered via condensation. The recovered solvent mixture is routed to a distillation column that separates toluene and hexane for subsequent reuse in the process.

Boilers

The boilers are used to provide steam for process heat at the facility. The larger boiler is used primarily for this purpose, with the smaller boiler used on a stand-by basis.

The facility is located at 1095 S. Fourth Avenue, in Brighton. Brighton is located in Adams county, within the Denver Metro area. The Denver metro area, including Brighton, is classified as attainment/maintenance for particulate matter less than 10 microns (PM_{10}) and carbon monoxide (CO). Under that classification, all SIP-approved requirements for PM_{10} and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(I) of the Federal Clean Air Act. The Denver metro area, including Brighton is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Colorado Regulation No. 7, Section II.A.1.

There are no affected states within 50 miles of this facility. Rocky Mountain National Park, a Federal Class I designated area is within 100 km of this facility.

The facility is not a major stationary source for purposes of both PSD review and NANSR requirements. Facility wide emissions are as follows:

	Potential to Emit (PTE)							
	PM	PM ₁₀	SO ₂	NO _X	CO	VOC	Ozone ¹	HAPs
Coating Line ²						88.15		88
Film Line						10.4	2.9	
Boilers	1.09	1.09	0.09	14.40	12.10	0.79		0.27
Insignificant process heaters ³	0.18	0.18	0.01	2.36	1.98	0.13		0.04
Insignificant space heaters ⁴	0.11	0.11	0.01	1.45	1.22	0.08		0.03
Total	1.38	1.38	0.11	18.21	15.30	99.55	2.9	88.34

¹Ozone emissions are from two (2) 15 Kw Corona Treaters.

²Emissions are based on the projected production rate. The projected production rate presumes approximately 2,775 hours of operation at maximum production rate and assumes ~ 97.62% control of VOC emissions from the solvent recovery system.

³The heaters (nine (9) burners are 0.5 mmBtu/hr and one (1) burner is 1 mmBtu/hr) are insignificant activities per Reg 3, Part C, Section II.E.3.k and are included in the insignificant activity list in Appendix A. ⁴There are 18 space heaters located at this facility with a total heat input rate of 3.38 mmBtu/hr. The heaters are insignificant activities per Reg 3, Part C, Section II.E.3.ggg and are included in the insignificant activity list in Appendix A.

Potential to emit of criteria pollutants in the above table is based on permitted emission limitations. Potential to emit for the insignificant process and space heaters is based on AP-42 emission factors (Section 1.4, dated 3/98, Tables 1.4-1 and 2), design rate and 8760 hours per year of operation.

The breakdown of hazardous air pollutant (HAP) emissions for each emission unit is provided for in the table on page 24 of this document. HAPs were estimated as follows:

For the coating lines, HAP emissions are based on the emission estimates provided in the July 28, 2009 Title V permit application (these were used to set permit limits for the facility). For the boilers, HAP emissions are based on permitted fuel consumption and AP-42 emission factors (Section 1.4, dated 3/98, Tables 1.4-3 and 4). For the insignificant process and space heaters, HAP emissions are based on design rate, AP-42 emission factors (Section 1.4, dated 3/98, Tables 1.4-3 and 4) and 8760 hours per year of operation.

Accidental Release Prevention Program (Section 112(r) of the Clean Air Act)

The source has indicated in its Title V permit application that this facility is not subject to the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act).

Compliance Assurance Monitoring (CAM)

CAM applies to any emission unit that is subject to an emission limitation, uses a control device to achieve compliance with that emission limitation and has potential pre-control emissions greater than major source levels.

Inherent process equipment is not considered a control device. Inherent process equipment includes material recovery equipment that is installed and operated primarily for purposes other than compliance with air pollution regulations. The Division considers that since the solvents captured by the solvent recovery system are re-used in the process that the solvent recovery system is inherent process equipment, as a result it is not considered a control device and CAM does not apply.

Maximum Achievable Control Technology (MACT) Requirements

The facility is a major source of HAPs; therefore, MACT requirements for major sources apply to the equipment at this facility. The potential MACT requirements that may apply to this facility are discussed below.

Paper and Other Web Coating (POWC) MACT (40 CFR Part 63 Subpart JJJJ)

The provisions of the POWC MACT apply to all web coating lines at a major source for HAP emissions. A web coating line is defined as any number of work stations, of which

one or more applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station. As discussed in the preamble to the final rule (December 4, 2002 Federal Register, pg 72332, beginning at 1st column, last paragraph), affiliated operations such as mixing or dissolving of coating ingredients prior to application; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater are part of the POWC category. However, because EPA was unable to identify emission reductions from these activities they were not included in the affected source and are not subject to the POWC MACT requirements. The appropriate requirements from the POWC MACT will be included in the permit.

Note that since the coating line commenced construction prior to September 13, 2000, the coating line is considered an existing affected source. The construction activities required for the re-start of the coating line did not meet the definition of reconstruction.

Miscellaneous Organic Chemical Manufacturing (MON) MACT (40 CFR Part 63 Subpart FFFF)

As specified in 40 CFR Part 63 Subpart FFFF § 63.2435(c)(3), affiliated operations located at an affected source under 40 CFR Part 63 Subpart JJJJ (POWC MACT) are not subject to the MON MACT requirements. Note that this section states that "[a]ffiliated operations include but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings, and solvent; and conveyance and treatment of wastewater."

Miscellaneous Coating Manufacturing (MCN) MACT (40 CFR Part 63 Subpart HHHHH)

As specified in 40 CFR Part 63 Subpart HHHHH § 63.7983(d)(1), affiliated operations located at an affected source under 40 CFR Part 63 Subpart JJJJ (POWC MACT) are not subject to the MCN MACT requirements. Note that this section states that "[a]ffiliated operations include but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings, and solvent; and conveyance and treatment of wastewater."

Organic Liquid Distribution (Non-Gasoline) MACT (40 CFR Part 63 Subpart EEEE)

The final rule for organic liquid distribution (OLD) was published in the federal register on February 3, 2004. In accordance with the provisions in 40 CFR Part 63 Subpart EEEE § 62.2334(a), the OLD MACT requirements apply to those who own or operate an OLD operation that is located at, or is part or, a major source of HAP emissions. Specifically this section states that "[a]n OLD operation may occupy an entire plant site or be collated with other industrial (e.g. manufacturing) operations at the same plant

site." The preamble to the final rule states that (February 3, 2004 Federal Register, pg 5044, 3rd column, last paragraph):

We consider the distribution network to include both outgoing and incoming transfers and storage of organic liquids whether offsite or onsite. Thus, while the types of facilities identified by the commenters may never distribute the liquids offsite, the activities, equipment and emissions that occur at such receiving and end-use facilities are part of the overall organic liquid distribution network.

The preamble goes on to state the following (pg 5045, 1st column, 5th paragraph):

Therefore we have not excluded from the final rule "tanks and other liquid handling equipment involved solely in activities within the plant site", and we have written the definition of OLD operation to include transfers and storage of organic liquids "into, out of, or within a plant site."

Therefore, although IPG does not distribute organic liquids offsite, because they receive and transfer organic liquids within their plant site, IPG is subject to the OLD MACT requirements. However, as specified in 40 CFR Part 63 Subpart EEEE § 63.2338(c)(1), storage tanks, transfer racks and equipment leak components that are part of an affected source under another subpart within part 63 are excluded from the affected source. Affiliated operations at this facility would certainly involve tank operations and as discussed previously under the POWC MACT discussion, affiliated operations are part of the POWC MACT source category, although affiliated operations are not subject to the POWC MACT requirements. Therefore, the Division considers that although this facility has OLD operations, the OLD MACT requirements do not apply because the source is subject to another MACT standard. Note that the preamble to the final OLD rule confirms that such sources are exempt from the OLD MACT requirements even in cases where the other rule does not require emission reductions from such sources (February 3, 2004 Federal Register, pg 5047, 1st column, 5th paragraph).

<u>Industrial, Commercial, Institutional Boilers and Process Heaters (40 CFR Part 63 Subpart DDDDD)</u>

The final rule for industrial, commercial and institutional boilers and process heaters was published in the Federal Register on September 13, 2004. Under 40 CFR Part 63 Subpart DDDDD, the boilers, both of which are fire tube boilers, were not subject to any requirements because the provisions in 40 CFR Part 63 Subpart DDDDD (§ 63.7506(c)(3)) exempt existing (constructed before January 13, 2003) small gaseous fired units (any boiler ≤ 10 mmBtu/hr and all firetube boilers) from the requirements in 40 CFR Part 63 Subparts A and DDDDD, including the initial notification requirements. However, the Boiler MACT was vacated July 30, 2007. Therefore, the case-by-case 112(j) MACT requirements apply. Under the 112(j) requirements (codified in 40 CFR Part 63 Subpart B §§ 63.50 through 63.56) sources are required to submit a 112(j) application by the specified deadline. Although the boilers were not subject to any

requirements under the Boiler MACT, the Division still considers that a 112(j) application would be required. As of this date, EPA has not provided any guidance to states with respect to 112(j) applications for vacated sources. Given that the Division has 18 months to process a 112(j) application and EPA is under a court-ordered deadline to issue a final MACT by December 15, 2010, the Division will not include a requirement to submit a 112(j) application but will include the appropriate MACT requirements in the event that they are promulgated prior to permit issuance.

It should be noted that EPA proposed Boiler MACT requirements in 40 CFR Part 63 Subpart DDDDD on April 30, 2010 (published in the Federal Register on June 4, 2010). In Section II of the permit there are two natural gas fired boilers (one 25 mmBtu/hr and one 33.48 mmBtu/hr). The insignificant activity list (Appendix A) includes 10 natural gas-fired burners (each rated at 1 mmBtu/hr or less) used to heat the oven zones in the film line and eighteen gaseous fired space heaters (each less than 0.5 mmBtu/hr). The proposed rule applies to boilers and process heaters. However, the proposed rule excludes units used for comfort heat or space heat; therefore, the space heaters are not subject to any requirements under the proposed MACT. In addition, based on the definition of process heater, the Division considers that the 10 natural gas fired burners are not process heaters, since they are not used to transfer heat indirectly to a process or heat transfer material.

The proposed rule does not include emission limits for natural gas fired units but instead specifies work practice requirements. Under the proposed rule existing boilers located at a major source must have an energy assessment performed on the major source. In addition, existing boilers or process heaters with a heat input capacity less than 10 mmBtu/hr must conduct biennial tune-ups.

III. Emission Sources:

The following sources are specifically regulated under terms and conditions of the Operating Permit for this Site.

S007 thru S011: Coating Line Equipped with Activated Carbon Bed Solvent Recovery System

Applicable Requirements – The coating line (coating line 2) initially commenced operation in 1983/1984. An initial approval permit (Colorado Construction Permit 83AD152-1) for this coating line was issued on August 15, 1983. An initial approval permit (83AD152) covering the entire facility was issued on March 8, 1995. Previously issued construction permits for individual pieces of equipment were cancelled with the issuance of the facility wide permit. An initial Title V permit (97OPAD183) that incorporated the provisions of that facility wide construction permit was issued on July 1, 1999. As previously stated, the facility ceased operation in 2006 and the Title V permit and underlying construction permit were cancelled effective December 31, 2006. The source later opted to re-start one of the coating lines and an initial approval permit (Colorado Construction Permit 08AD0168) was issued on August 7, 2008 for that

purpose. A modification to Colorado Construction Permit 08AD0168 was issued on January 30, 2009 to allow the use of the second boiler as a back-up unit. The coating line re-started operation in September of 2008.

The source identified the following equipment in their Title V operating permit application as belonging to the coating line.

Unit ID No.	Equipment Description	Control Device
P200	#2 Coater Dryer Oven	Activated Carbon Bed Solvent Recovery System
P201	#2 Primer Dryer Oven	
T202	#2 Coater Primer Tank	
P203	#2 Coater Release Dryer Oven	
T204	#2 Coater Release Tank	
P212	Distillation Column DS2700	
P814 thru P818	Adhesive Mixers MT5101 thru MT5105	
P819	Release Mixer MT 5112	
P820	Primer Mixer MT5111	
T821, T822 & T823	Primer Tanks TK5401, TK5402 and TK5403	Activated Carbon Bed Solvent Recovery System
T824 & T825	Release Tanks TK5404 and TK5405	
T826 thru T830	Adhesive Tanks TK5201 thru 5205	
T930 thru T933	Solvent and Mixed Solvents Tanks TK5001, TK5002, TK5501 and TK5502	

The source self-certified compliance with Colorado Construction Permit 08AD0168 on February 27, 2009. Therefore, under the provisions of Colorado Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate applicable requirements from the modified initial approval construction permit 08AD0168 related to the coating line have been incorporated into the permit as follows:

 Opacity of emissions shall not exceed 20%, except under specific conditions, then opacity shall not exceed 30% (Conditions 2 and 3).

The coating line is not considered to be a source of opacity emissions; therefore, this condition will not be applied to the coating line.

 Major stationary source requirements for non-attainment areas apply if at any time the source becomes major for either VOC or NO_X by virtue of relaxation of permit conditions (condition 5) This condition will not be included in the operating permit since no actual requirements apply, unless certain modifications to the permit conditions for this facility are made. Although this requirement will not be included in the permit, future modifications that cause this facility to become major for NO_X or VOC for purposes of NANSR by virtue of relaxation of any of these permit conditions will result in the application of NANSR requirements.

- Emissions of air pollutants shall not exceed the following limitations (condition 7)
 - Facility wide VOC

8.3 tons/mo

and

99.4 tons/vr

Since the VOC limit is a facility wide limit, it will be included in a facility wide section of the permit.

The monthly limits apply for the first twelve months of operation. Since the facility has been operating for more than twelve months the monthly limitations will not be included in the permit.

 VOC emissions from all insignificant activities shall not exceed 0.6 tons/yr (condition 9)

Since this is a facility wide requirement this condition will be included in a facility wide section of the Title V permit.

• APEN reporting (condition 10)

The APEN reporting requirements will not be identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit, condition 22.e.

 A Title V permit application is due within one year of permit issuance (condition 11).

The Title V permit application was submitted on July 28, 2009; therefore, this requirement will not be included in the permit.

 Prior to issuance of final approval, the applicant shall submit an operating and maintenance plan and shall follow the Division-approved operating and maintenance plan (condition 12)

An operating and maintenance plan was submitted on February 24, 2009 and the Division approved the plan on September 10, 2009. The appropriate requirements from the operating and maintenance plan will be incorporated into the Title V permit.

• Within 180 days after issuance of this permit, compliance with these conditions shall be demonstrated (condition 13).

A self-certification was submitted on February 27, 2009; therefore, this requirement will not be included in the permit.

• Storage tanks and containers associated with the coating line are subject to Reg 7, Section III.A and B (condition 21).

The Reg 7, Section III.A and B requirements will not be identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit, condition 29.a.

 The coating line shall be equipped with solvent recovery systems capable of reducing uncontrolled VOC emissions by at least 97.6% (condition 22).

A control efficiency of 97.6% was used in the construction permit application in order to set the permit limit. As long as the source meets the requirements in Reg 7, Section IX, NSPS Subpart RR and MACT Subpart JJJJ, as well as the annual emission limitations, it is not necessary to include a percent control requirement for the solvent recovery system. Therefore, the percent control requirement will not be included in the Title V permit.

• A permanent total enclosure (PTE) shall be installed around the coating line (condition 23)

Note that the construction permit required that the permittee submit documentation within 180 days of permit issuance to demonstrate that the PTE meets the standards in EPA's Method 204. Since the source submitted such documentation, the requirement to submit documentation will not be included in the Title V permit.

 The coating line is subject to the requirements in Reg 7, Section IX, (condition 24)

The following discussion of the Reg 7, Section IX requirements as they apply to this facility was included in the preliminary analysis for the initial approval for Colorado Construction Permit 08AD0168 (issued August 7, 2008) and has been reproduced here.

Test methods and procedures in Section IX.A.3

This section requires the source to use EPA Method 24 and/or manufacturer's formulation data to determine the composition of the coatings used and requires that a performance test be conducted (using EPA Method 25) for sources that use add-on control devices. Although the source uses an add-on control device, because the source uses a solvent recovery system and emissions are determined by material balance, the Division considers that no performance test is necessary (it should be noted that neither the NSPS or MACT require a performance test, they both rely on the material balance for the compliance demonstration). In addition, both the NSPS and MACT

specify methods for determining the composition of the coatings, therefore, the Division considers that the provisions in this section do not apply and will not be included in the permit.

- Sampling in Section IX.A.4
- Alternative compliance methods for processes and operations in Section IX.A.5

The section provides the compliance methods for meeting the emission limits in Sections IX.B through IX.N. The permittee is using a control method to comply with the emission limitations in Section IX.J. Under Section IX.A.5.c, use of an add-on control shall meet the requirements of IX.A.5.e and f.

Section IX.A.5.e addresses capture systems and requires written certification of the efficiency of the capture system, to be approved by the Division and/or performance testing. The Division considers that since the source uses a solvent recovery system and emissions are based on material balance, that no testing is required for the capture system and the requirements in Section IX.A.5.e will not be included in the permit. Note that under a COC issued for past enforcement actions (see discussion under "Proposed Controls & Efficiency" above), the source installed a PTE, the source will be required to demonstrate that the PTE meets the requirements of EPA Method 204 (the MACT specifies that 100% capture can be assumed if the PTE meets the requirements of Method 204).

Section IX.5.f specifies that sources that use an add-on control device shall meet the equivalent VOC emission limit in lb VOC per gallon of solids. This limit has been included in the permit as discussed below under Section IX.J.

Finally, Section IX.A.5.g applies for sources that use a carbon adsorption system and this requirement has been included in the permit.

- Fugitive emission control in Section IX.A.7
- Recordkeeping, reporting and monitoring in Section IX.A.8

The source is subject to the monitoring and recordkeeping requirements in Section IX.A.8.a.(3) and IX.A.8.b.(2). Although the source is equipped with a capture system, since the capture system is a PTE that meets the requirements in EPA Method 204 and the source is using a material balance method to estimate emissions, the Division considers no additional monitoring is required for the capture system and the requirements in Section IX.A.8.b.(1) will not be included in the permit.

Section IX.A.8.b.(2) specifies that bed vacuum pressure and pressure at the vacuum pump be monitored and recorded daily, in addition to other parameters. However, in their comments (received on July 13, 2010), IPG indicated that the solvent recovery system is not equipped with a vacuum pump; therefore, bed vacuum pressure and pressure at the vacuum pump

have been removed from the list of parameters to be monitored and recorded daily.

Note that since the initial approval permit was issued, formatting changes were made to Colorado Regulation No. 7, Section IX.A.8 and Section IX.A.8.a.(3) is now numbered Section IX.A.8.a.(iii) and Section IX.A.8.b.(2) is now numbered Section IX.A.8.b.(ii).

 The coating line is subject to the requirements in 40 CFR Part 60 Subpart RR, as adopted by reference in Colorado Regulation No. 6, Part A (condition 25)

As part of the re-start of the coating line, the Division included the initial performance test requirements. Given that the coating line has been in operation for more than a year, the initial performance test has been completed. Therefore, the performance test requirements in both Subparts A (§ 60.8) and RR (§ 60.444) and the requirement to submit the results of the initial performance test (§ 60.447(a) will not be included in the permit.

In addition, the recordkeeping requirements in § 60.445(h) specify that records shall be kept for 2 years, while Reg 3, Part C, Section V.C.6 requires that records be retained for five (5) years. Therefore, the NSPS recordkeeping requirement will be streamlined out of the permit.

 The coating line is subject to the requirements 40 CFR Part 63 Subpart JJJJ, as adopted by reference in Colorado Regulation No. 8, part E, Section III (condition 26)

The requirements listed in the construction permit have been included in the permit. It should be noted that the exemptions from the MACT emission limits during periods of startup, shutdown and malfunction included in the MACT general provisions (40 CFR Part 63 Subpart A) were vacated in December 2008. As indicated in a July 22, 2009 memo from EPA to various parties, this effectively means that §§ 63.6(f)(1) and (h)(1) are null and void. Therefore, any MACT source categories that referenced the MACT general provisions and did not include a specific exemption from the emission limitations during periods of startup, shutdown and malfunction in the individual subpart, would have to meet the MACT emission limitations at all times. Since the provisions in 40 CFR Part 63 Subpart JJJJ do not include a specific exemption from the MACT emission limitations during periods of startup, shutdown and malfunction, the source must meet the MACT emission limitations at all times. The construction permit did not specifically list § 63.6(f)(1) as an applicable general provision; therefore, no changes were made in incorporating the construction permit requirements into the Title V permit. Note that § 63.6(h)(1) addresses opacity and since Subpart JJJJ does not include any opacity limitations, this exemption never applied.

 RACT applies to the coating line and RACT has been determined to be the requirements in Condition 22 (use of solvent recovery system) and Condition 24 (Reg 7, Section IX) (condition 27)

Since specific requirements included in Reg 7 are considered to be RACT and this condition references the Reg 7 requirements, this condition is not necessary and will not be included in the Title V permit

Although not specifically included in the construction permit, the odor requirements in Colorado Regulation No. 2, Part A apply. Although these odor requirements are included in the general conditions (Condition 14), the Division considers that for this source, the odor requirements should be more specifically identified, therefore the odor requirements have been specifically indicated in Section II of the permit for the coating line.

Emission Factors – Emissions from the coating line (including affiliated equipment such as tanks and mixers and affiliated operations such as mixing and blending) are based on material balance, in accordance with the following equation:

Emissions = (quantity of coating used)(VOC content of coating) - (quantity of VOC recovered) - (quantity of VOC retained).

This is acceptable to demonstrate compliance with the annual VOC emission limits.

The VOC content of the coatings should be based on either the manufacturer's information (i.e. Material Safety Data Sheets) or EPA Reference Method 24. In cases where discrepancies exist between manufacturer's data and Method 24, Method 24 will govern.

Although the quantity of solvent retained in the product may be considered in calculating emissions to demonstrate compliance with the annual emission limits, the source cannot include the solvent retained in the product when demonstrating compliance with NSPS, MACT or Regulation No. 7 requirements.

Monitoring Plan – The source will be required to record the quantities of coatings used, product produced and solvents recovered monthly. This information will be used to calculate annual VOC emissions. Monthly VOC emissions will be used in twelve month rolling totals to monitor compliance with the annual emission limitations. Compliance with the odor requirements shall be demonstrated by maintaining records of complaints and employing work practices that minimize odor emissions. Both NSPS RR and MACT JJJJ require a continuous monitoring device that indicates cumulative solvent recovered per month and require that the monitoring device be accurate to <u>+</u> 2%. In addition, as required by Reg 7, the source shall have a continuous monitoring device for VOC breakthrough on the carbon absorption beds. This continuous monitoring device shall be hooked up to a data acquisition and handling system (DAHS) or strip chart and shall be calibrated daily. Compliance with the NSPS and MACT limits shall be demonstrated in accordance with the requirements in those particular regulations.

Compliance Status – In their Title V permit application, the source indicated that they were in compliance with all applicable requirements.

S048: Cleaver Brooks, Model No. 700-800, Fire-Tube Steam Boiler, Rated at 33.48 mmBtu/hr, Serial No. OL-09511. Natural Gas Fired. Fire-Tube Boiler.

S049: Cleaver Brooks, Model No. 700-600, Fire-Tube Steam Boiler, Rated at 25 mmBtu/hr, Serial No. L-84624. Natural Gas Fired.

Applicable Requirements – Boiler S049 initially commenced operation in 1988. An initial approval construction permit (Colorado Construction Permit 88AD189) was issued on August 31, 1988 for Boiler S049. An initial approval permit (83AD152) covering the entire facility was issued on March 8, 1995. Previously issued construction permits for individual pieces of equipment were cancelled with the issuance of the facility wide permit. An initial Title V permit (970PAD183) that incorporated the provisions of that facility wide construction permit was issued on July 1, 1999. Boiler S048 initially commenced operation in October 2005. Boiler S048 replaced a previous boiler (Cleaver Brooks, Model 700-600, rated at 25 mmBtu/hr, S/N L-77717, commenced operation in 1983/84, originally permitted under Colorado Construction Permit 83AD152-2, initial approval issued August 15, 1983) and the replacement was processed as a minor modification to the Title V permit (modification issued December 9, 2005). As previously stated, the facility ceased operation in 2006 and the Title V permit and underlying construction permit were cancelled effective December 31, 2006. The source later opted to re-start the film line and Boiler S048 and an initial approval permit (Colorado Construction Permit 07AD0748) was issued on August 22, 2007 for that purpose. In December 2007, IPG indicated their desire to re-start one of the coating lines and an initial approval permit (Colorado Construction Permit 08AD0168) was issued on August 7, 2008 for that purpose. Since Colorado Construction Permit 08AD0168 addressed the entire facility, Colorado Construction Permit 07AD0748 was cancelled. A modification to Colorado Construction Permit 08AD0168 was issued on January 30, 2009 to allow the use of the Boiler S049 primarily as a back-up unit. Boiler S048 re-started operation in October 2007 and Boiler S049 re-started operation in February 2009.

The source self-certified compliance with Colorado Construction Permit 08AD0168 on February 27, 2009. Therefore, under the provisions of Colorado Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate applicable requirements from the modified initial approval construction permit 08AD0168 related to the boilers have been incorporated into the permit as follows:

• Opacity of emissions shall not exceed 20%, except under specific conditions, then opacity shall not exceed 30% (Conditions 2 and 3).

- Production limits from both boilers together shall not exceed the following limitations (condition 6)
 - o Consumption of natural gas 24.4 mmscf/mo and 288 mmscf/yr
- Emissions of air pollutants shall not exceed the following limitations (condition 7)

0	Facility wide VOC	8.3 tons/mo	and	99.4 tons/yr
0	Nitrogen oxides	1.4 tons/mo	and	14.38 tons/yr
0	Carbon monoxide	1.0 tons/mo	and	12.08 tons/yr

Since the VOC limit is a facility wide limit, it will be included in a facility wide section of the permit.

 NO_X and CO limits apply to **both boilers together**.

The monthly limits apply for the first twelve months of operation. Since the facility has been operating for more than twelve months the monthly limitations will not be included in the permit.

• APEN reporting (condition 10)

As discussed above for the coating line, the APEN reporting requirements are included in Section IV, Condition 22.e.

- Particulate matter emissions **from each boiler** shall not exceed 0.5(FI)^{-0.26} lbs/mmBtu, where FI = fuel input in mmBtu/hr (condition 14 and Reg 1, Section III.A.1.b).
- Each boiler is subject to Regulation No. 6 Standards of Performance for New Stationary Sources, Part B – Specific Facilities and Sources, Non-Federal NSPS, II – Standards of Performance for New Fuel-Burning Equipment (condition 15). These are state-only requirements.
 - Opacity of emissions shall not exceed 20%
 - Particulate matter emissions shall not exceed 0.5(FI)^{-0.26} lbs/mmBtu, where FI = fuel input in mmBtu/hr

Note that the construction permit indicated that the SO_2 emission limit in Reg 6, Part B, Section II.D.3.a applies to the boilers, but the SO_2 limit only applies to units that burn fuel oil. Since these boilers only burn natural gas, the SO_2 limit does not apply and has not been included in the Title V permit.

In addition, although not noted in the construction permit, sources subject to the **state-only** NSPS requirements in Reg 6, Part B are also subject to the NSPS general provisions as indicated in Reg 6, Part B, Section I.A. Therefore, the

NSPS general provisions apply on a **state-only** basis and will be included in the Title V permit.

- **Boiler S048** is subject to the requirements in 40 CFR Part 60 Subpart Dc Standards of performance for Small Industrial-Commercial-Institutional Steam Generating Units, including, but not limited to the following (condition 16):
 - Record quantity of fuel burned monthly in accordance with 40 CFR Part 60 Subpart Dc § 60.48c(g).
 - Retain records for two years in accordance with 40 CFR Part 60 Subpart Dc § 60.48c(i).
- In addition, Boiler S048 is also subject to the NSPS General Provisions in 40 CFR Part 60 Subpart A, including, but not limited to the following (condition 8):
 - Good practices (§ 60.11(d))
 - Circumvention (§ 60.12)
 - Record startup, shutdowns and malfunctions (§ 60.7(b))
- The boilers are subject to RACT requirements for VOC, CO, PM₁₀ and NO_X (S048 only) (conditions 17 thru 19) and RACT has been determined to be good combustion practices and use of natural gas as fuel.
- The boilers are subject to the MACT requirements for industrial, commercial and institutional boilers and process heaters and since that MACT has been vacated, the case-by-case MACT requirements in 112(j) apply (condition 20).

As previously indicated, the Division has 18 months to act on a 112(j) case-by-case MACT application and given that EPA is under a court-ordered deadline to propose Boiler MACT requirements by finalize the Boiler MACT by December 15, 2010, the Division considers that including requirements to submit a case-by-case MACT application are not appropriate. The Division will however, include placeholder language for the Boiler MACT requirements and in the event that the Boiler MACT is finalized prior to permit issuance, the appropriate requirements from the Boiler MACT will be included in the Title V permit. Note that under the proposed Boiler MACT (published in the Federal Register on June 4, 2010), existing boilers located at a major source must have an energy assessment performed on the major source.

Streamlining of Applicable Requirements

Opacity

The boilers are subject to the Regulation No. 1 opacity standards and the Regulation No. 6, Part B opacity requirement. The Reg 1 20% opacity requirement applies at all times, except for certain specific operating conditions under which the Reg 1 30% opacity requirement applies. Reg 6, Part B, Section I.A, adopts, by reference, the 40 CFR Part 60 Subpart A general provisions. 40 CFR Part 60 Subpart A § 60.11(c) specifies that the opacity requirements are not applicable during periods of startup, shutdown and malfunction. The Reg 1 20%/30% opacity requirements are more stringent than the Reg 6 Part B opacity requirements during periods of startup, shutdown and malfunction (see opacity grid on page 24). While the Reg 6, Part B 20% opacity requirement is more stringent during fire building, cleaning of fire boxes, soot blowing, process modifications and adjustment or occasional cleaning of control equipment. Therefore, since no one opacity requirement is more stringent than the other at all times, all three opacity requirements are included in the operating permit. See the grid on page 25 for a clarified view on the opacity requirements and their relative stringency.

It should be noted that since the boilers are only permitted to use natural gas as fuel, the Division will presume, in the absence of credible evidence to the contrary, that these units are in compliance with all of the opacity requirements.

PM

The boilers are subject to the Reg 1 particulate matter requirements and the state-only, Reg 6, Part B particulate matter requirements. The particulate matter requirements in both Reg 1 and Reg 6, Part B are the same standard. The Reg 1 particulate matter requirements apply at all times. Reg 6, Part B, Section I.A, adopts, by reference, the 40 CFR Part 60 Subpart A general provisions. Although not specifically stated in the general provisions, the Division has concluded after reviewing EPA determinations that the NSPS standards are not applicable during startup, shutdown and malfunction, although any excess emissions during these periods must be reported in the excess emission reports. Specifically, EPA has indicated (4/18/75, determination control no. A007) that when 40 CFR Part 60 Subpart A § 60.11(d) was developed "...it was recognized that sources which ordinarily comply with the standards may during periods of startup, shutdown and malfunction unavoidably release pollutants in excess of the standards." In addition, EPA has also indicated (5/15/74, determination control number D034) that "[s]ection 60.11(a) makes it clear that the data obtained from these reports are not used in determining violations of the emission standards. Our purpose in requiring the submittal of excess emissions is to determine whether affected facilities are being operated and maintained 'in a manner consistent with good air pollution control practices for minimizing emissions' as required by 60.11(d)." Therefore, the Division considers that the Reg 6, Part B PM requirements do not apply during periods of startup, shutdown and malfunction. Therefore, the Regulation No. 1 PM requirement is more stringent than the Regulation No. 6, Part B requirement and the Regulation No. 6, Part B requirements will be streamlined out of the permit.

Recordkeeping

NSPS Dc requires that records be kept for a period of 2 years, while Reg 3, Part C, Section V.C.6 requires that records be retained for five (5) years. Therefore, the NSPS recordkeeping requirement will be streamlined out of the permit.

Emission Factors - Approval of emission factors is necessary to monitor compliance with the permit limitations. The following emission factors will be included in the operating permit for the boilers.

Pollutant	Emission Factors (lbs/mmSCF)	Emission Factor Source
PM	7.6	AP-42, Section 1.3, dated 3/98, Tables 1.4-1
PM ₁₀	7.6	& 1.4-2, uncontrolled boilers < 100 mmBtu/hr
SO ₂	0.6	
NO _X	100	
CO	84	
VOC	5.5	

Note that since PM, PM_{10} and SO_2 emissions at the requested fuel consumption limit are all below the APEN de minimis level, emission limitations for those pollutants were not included in the construction permit and will not be included in the Title V renewal permit.

Monitoring Plan – The source will be required to record fuel consumption and calculate emissions monthly. Monthly fuel consumption and emissions shall be used in twelve month rolling totals to monitor compliance with the annual limitations. In the absence of credible evidence to the contrary, compliance with the particulate matter and opacity standards will be presumed, since the boilers are only permitted to burn natural gas as fuel.

Compliance Status - In their Title V permit application, the source indicated that they were in compliance with all applicable requirements.

S051 thru S053, S055 thru S058, S061 and S062: Film Line

Applicable Requirements – The film line initially commenced operation in 1988. An initial approval construction permit (Colorado Construction Permit 88AD1003) was issued on May 2, 1989 for the film line. An initial approval permit (83AD152) covering the entire facility was issued on March 8, 1995. Previously issued construction permits for individual pieces of equipment were cancelled with the issuance of the facility wide permit. An initial Title V permit (97OPAD183) that incorporated the provisions of that facility wide construction permit was issued on July 1, 1999. As previously stated, the facility ceased operation in 2006 and the Title V permit and underlying construction permit were cancelled effective December 31, 2006. The source later opted to re-start the film line and Boiler S048 and an initial approval permit (Colorado Construction Permit 07AD0748) was issued on August 22, 2007 for that purpose. In December 2007, IPG indicated their desire to re-start one of the coating lines and an initial approval permit (Colorado Construction Permit 08AD0168) was issued on August 7,

2008 for that purpose. Since Colorado Construction Permit 08AD0168 addressed the entire facility, Colorado Construction Permit 07AD0748 was cancelled. A modification to Colorado Construction Permit 08AD0168 was issued on January 30, 2009 to allow the use of the boiler S049 as a back-up unit. The film line re-started operation in October 2007.

The source identified the following equipment in their Title V operating permit application as belonging to the film line.

Stack ID No.	Unit ID No.	Equipment Description	Control Device
S051	P051	Corona Treatment Exhaust "A"	Uncontrolled
S052	P052	Northern Cooling Vent "B1"	
S053	P053	Southern Cooling Vent "B2"	
S054	P054	TDO Burner Exhaust "D" TDO burners are insignificant activities per Reg 3, Part C, Section II.E.3.k and are included in the insignificant activity list in Appendix A of the Title V permit ¹	
S055	P055	Extruder Exhaust "E:"	
S056	F056	Extruder Exhaust – fugitive	
S057	P057	Reclaim Process Silo Exhaust "F"	
S058	P058	Reclaim Process Pellet Dryer Exhaust "G"	
S059	P059	Beringer Exhaust "H"	
S060	P060	Flame Treater Exhaust "I"-	
S061	F061	Other Fugitive Exhausts "X"	
S062	P062	Cooling Vent "C"	

There are 10 burners, 9 at 0.5 mmBtu/hr, each and 1 at 1.0 mmBtu/hr.

Note that during review of the application, the source indicated that the flame treater (S060/P060) had been removed, therefore, it has not been included in the permit equipment list (Appendix G of the permit).

The source self-certified compliance with Colorado Construction Permit 08AD0168 on February 27, 2009. Therefore, under the provisions of Colorado Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate applicable requirements from the modified initial approval construction permit 08AD0168 related to the film line have been incorporated into the permit as follows:

 Opacity of emissions shall not exceed 20%, except under specific conditions, then opacity shall not exceed 30% (Conditions 2 and 3).

The film line is not considered to be a source of opacity emissions; therefore, this condition will not be applied to the film line. Note that although the film line scrap recycling system uses a baghouse that vents to minimize dust, the Division has

not included the opacity requirement or opacity monitoring for the baghouse since it vents inside the building.

- Production limits shall not exceed the following limitations (condition 6)
 - Production of plastic film 1,085 tons/mo and 12,775 tons/yr
- Emissions of air pollutants shall not exceed the following limitations (condition 7)

Facility wide VOC
 Ozone
 8.3 tons/mo
 and
 99.4 tons/yr
 and
 2.9 tons/yr

Since the VOC limit is a facility wide limit, it will be included in a facility wide section of the permit.

The monthly limits apply for the first twelve months of operation. Since the facility has been operating for more than twelve months the monthly limitations will not be included in the permit.

- Hours of operation shall be recorded monthly for use in calculating ozone emissions (condition 8)
- APEN reporting (condition 10)

As discussed above for the coating line, the APEN reporting requirements are included in Section IV, Condition 22.e.

Emission Factors - Approval of emission factors is necessary to monitor compliance with the permit limitations. The following emission factors will be included in the operating permit for the boilers.

Pollutant	Emission Factor	Emission Factor Source		
VOC	8.18 x 10 ⁻⁴ lb/lb product	1992 performance test		
Ozone	10 g/Kw-hr	Manufacturer		

Monitoring Plan – The source will be required to monitor the quantity of film produced and the hours of operation monthly. Monthly quantities of film and hours of operation will be used to calculate monthly emissions. Monthly film production and emissions will be used in twelve month rolling totals to monitor compliance with annual limitations.

Compliance Status – In their Title V permit application, the source indicated that they were in compliance with all applicable requirements.

Cold Cleaner Solvent Vat

Although not specifically included in the Title V permit application, a cold cleaner solvent vat was in operation prior to the December 2006 shutdown and included in the

previously issued Title V permit (97OPAD183). The source indicated that there is still a parts cleaner at the site and the parts cleaner does not use an aqueous solvent. Therefore the parts cleaner is subject to the requirements in Colorado Regulation No. 7, Section X.B.

Although emissions from the solvent vat are below the APEN de minimis requirements and therefore exempt from both APEN reporting and construction permit requirements, under the "catch-all" provisions in Regulation No. 3, Part C, Section II.E (2nd paragraph) the vat cannot be considered an insignificant activity because it is subject to specific requirements in Regulation No. 7. Since the solvent vat cannot be considered an insignificant activity, the vat will be included in the Title V permit as a significant emission unit.

The applicable requirements from Regulation No. 7 for this unit are as follows:

- Transfer and storage of waste solvent and used solvent (Reg 7, Sections X.A.3 and 4)
- Solvent Cold Cleaner Requirements (Reg 7, Section X.B)
 - Control Equipment covers, drainage, labeling and spray apparatus requirements (Reg 7, Section X.B.1)
 - o Operating Requirements (Reg 7, Section X.B.2)

IV. Insignificant Activities

The source indicated that the following general categories of insignificant activities at this site include: in-house experimental and laboratory equipment (bench scale), chemical storage - tanks or containers < 500 gal and storage areas < 5,000 gal, landscaping and site housekeeping devices < 10 hp, storage of butane, propane and LPG (< 60,000 gal), lube oil tanks < 40,000 gal, fuel burning (gaseous) equipment < 10 mmBtu/hr used for comfort heat and emission units with emissions below the APEN de minimis level.

Note that during review of the application, the source indicated that they did not have insignificant activities in the following categories: chemical storage areas < 5,000 gal, storage of butane, propane and LPG (< 60,000 gal) and lube oil tanks < 40,000 gal therefore, these categories are not included in the insignificant activity list in Appendix A of the Title V permit.

The following insignificant activities were specifically identified in the Title V permit application:

Fuel (gaseous) burning equipment < 5 mmBtu/hr (Reg 3, Part C.II.E.3.k)

TDO burners (9 at 0.5 mmBtu/hr and 1 at 1 mmBtu/hr)

Fuel (gaseous) burning equipment < 10 mmBtu/hr, used for comfort heat (Reg 3, Part C.II.E.3.ggg)

One (1) space heater, 0.060 mmBtu/hr (breakroom)
Two (2) Space heaters, 0.160 mmBtu/hr, each (old offices)
Fifteen (15) space heaters, 0.20 mmBtu/hr each (plant/warehouse)

V. Alternative Operating Scenarios

No alternative operating scenarios were requested for this facility.

VI. Permit Shield

Permit Shield for Non-Applicable Requirements

The source requested the permit shield for the following non-applicable requirements:

- 40 CFR Part 60 Subparts D, Da and Db, as adopted by reference in Colorado Regulation No. 6, Part A. The permit application states that these requirements are not applicable since the heat input of each boiler is less than 100 mmBtu/hr. The permit shield was granted based on the source's justification.
- 40 CFR Part 60, Subparts Ka and Kb, as adopted by reference in Colorado Regulation No. 6, Part A. The permit application states that these requirements are not applicable since the facility has no storage vessels for petroleum liquids and the storage vessels at the facility commenced construction before July 23, 1984. The permit shield was granted based on the source's justification.
- 40 CFR Part 60 Subpart FFF, as adopted by reference in Colorado Regulation No. 6, Part A. The permit application states that these requirements are not applicable since this facility is not involved in flexible vinyl and urethane coating and printing. The permit shield was granted based on the source's justification.
- 40 CFR Part 60 Subpart SSS, as adopted by reference in Colorado Regulation No. 6, Part A. The permit application states that these requirements are not applicable since this facility is not involved in magnetic tape coating. The permit shield was granted based on the source's justification.
- 40 CFR Part 60 Subpart TTT, as adopted by reference in Colorado Regulation No. 6, Part A. The permit application states that these requirements are not applicable since this facility is not involved in coating of plastic parts for business machines. The permit shield was granted based on the source's justification.

Permit Shield for Streamlined Requirements

These requirements are applicable to the emission units at the IPG Brighton Facility. As discussed previously in this document, under streamlining of applicable requirements, the Division has included the above requirements, as appropriate in the permit shield for streamlined/subsumed conditions.

Coating Line

Requirement to maintain records for two years in 40 CFR Part 60 Subpart Dc § 60.48c(i), streamlined out since the requirements for retaining records in Reg 3, Part C (general conditions 22.b and c in the operating permit) is more stringent.

Boilers

- State-only PE = 0.5(FI)^{-0.26} lbs/mmBtu PM requirement (Reg 6, Part B, Section II.C.2), streamlined out since Reg 1 PM requirement is more stringent.
- Requirement to maintain records for two years in 40 CFR Part 60 Subpart Dc § 60.48c(i), streamlined out since the requirements for retaining records in Reg 3, Part C (general conditions 22.b and c in the operating permit) is more stringent.

Hazardous Air Pollutant Emissions (tons/yr)

Pollutant	Boilers ¹	TDO Burners ²	Space Heaters ²	Coating Line ³	Film Line ⁴	Total
benzene	3.02E-04	4.96E-05	3.05E-05			3.82E-04
dichlorobenzene	1.73E-04	2.83E-05	1.74E-05			2.19E-04
formaldehyde	1.08E-02	1.77E-03	1.09E-03			1.37E-02
hexane	2.59E-01	4.25E-02	2.61E-02	65		65.33
toluene	4.90E-04	8.03E-05	4.93E-05	23		23.00
cadmium	1.58E-04	2.60E-05	1.60E-05			2.00E-04
chromuim	2.02E-04	3.31E-05	2.03E-05			2.55E-04
nickel	3.02E-04	4.96E-05	3.05E-05			3.82E-04
Total	2.72E-01	4.45E-02	2.74E-02	88.00	0.00E+00	88.34

¹HAP emissions are based on AP-42 emission factors (Section 1.4, dated 3/98, Tables 1.4-3 and 4) and the permitted fuel consumption limit.

²HAP emissions are based on AP-42 emission factors (Section 1.4, dated 3/98, Tables 1.4-3 and 4), design rate (design rate totals: TDO burners - 5.5 mmBtu/hr and Space heaters - 3.38 mmBtu/hr) and 8760 hrs/yr of operation.

³HAPS based on esimtates in the July 28, 2009 Title V permit application

⁴HAPS from the film line are assumed to be neglible

Opacity Streamlining Grid

Reqmt Source	Normal	Start-up	Shutdown	Malfunction	Fire Building	Cleaning of Fire Boxes	Soot Blowing	Process Modifications	Adjustment/ Cleaning of Control Equipment
Reg 1 Sections II.A.1 & 4	20%	30% with one 6 minute interval in excess of 30% per hour	20%	20 %	30% with one 6 minute interval in excess of 30% per hour	30% with one 6 minute interval in excess of 30% per hour	30% with one 6 minute interval in excess of 30% per hour	30 % with one 6 minute interval in excess of 30% per hour	30% with one 6 minute interval in excess of 30% per hour
Reg 6, Part B, Section II.C.3 - State Only	20%	No standard ¹	No standard ¹	No standard ¹	20%	20%	20%	20%	20%

Although the opacity standards are not applicable during start-up, shutdown and malfunction 40 CFR ' 60.7(c) (2) requires the source to report each period of excess emissions that occurs during startups, shutdowns, and malfunctions, the nature of the malfunction and the corrective action taken or preventative measures adopted. Note that for Reg 6, Part B requirements, the NSPS general provisions are adopted by reference and so any opacity exemption provided in the NSPS applies to source subject to Reg 6, Part B.

^{*} Shaded regions are the most stringent **Federal** requirements

^{**} Values in bold are the most stringent **State-only** requirements however **federal** requirements cannot be streamlined out of the permit due to more stringent **state-only** requirements